

Section II (Remarks)

Addition of New Claim 84

New claim 84 has been added herein as a linking claim for all apparatus claims 1-49 of the application, in connection with the restriction requirement imposed in the July 1, 2009 Office Action (see discussion, *infra*).

Claim 84 recites

84. An apparatus for generating hydrogen gas, comprising:
 a vessel arranged to contain a sorbate gas in a physically adsorbed state, said sorbate gas being decomposable to form hydrogen gas;
 a decomposition locus in the vessel or in a chamber communicatively connected to the vessel, wherein the sorbate gas decomposes to form hydrogen gas; and
 a gas permeable membrane arranged to separate the hydrogen gas.

Such claim is fully consistent with and supported by the disclosure of the originally filed application. See for example the discussion at page 6, lines 2-14 (“an apparatus for storing and dispensing a sorbate gas, wherein the sorbate gas undergoes decomposition to form hydrogen gas... a storage and dispensing vessel containing the sorbate gas in a physically adsorbed state... vessel is communicatively connected to the decomposition portion, and wherein the decomposition portion and the collection portion are separated by a gas permeable membrane”) and page 7, lines 17-19 (“at least a portion of the sorbate gas undergoes decomposition in the vessel to form hydrogen gas, and hydrogen gas egresses the vessel through the gas permeable membrane of the dispensing assembly”).

No new matter within the meaning of 35 U.S.C. §132(a) has been introduced by the addition of claim 84.

Restriction Requirement, and Response

In the July 1, 2009 Office Action, the Examiner has required restriction under the provisions of 35 U.S.C. 121 between:

Group I claims 1-27, drawn to an apparatus for storing and dispensing a sorbate gas;

Group II claims 28-35, drawn to an apparatus for storing, dispensing and regenerating a sorbate gas;

Group III claims 36-49, drawn to an apparatus for storing and dispensing a sorbate gas with a solid-phase physical sorbent medium;

Group IV claims 50-72, drawn to a method for generating hydrogen gas by the decomposition of a sorbate gas; and

Group V claims 73-83, drawn to a method for generating hydrogen gas and flowing the hydrogen gas.

Applicant hereby elects, with traverse, the Group I claims 1-27 drawn to an apparatus for storing and dispensing a sorbate gas.

The claims encompassing the elected subject matter of Group I are the claims 1-27 specified by the examiner.

The traversal of the restriction requirement is based, inter alia, on the entry herein of new claim 84, as a linking claim encompassing the subject matter of Groups I-III. It therefore is requested that the restriction requirement be reconsidered, and that claims 1-49 and 84 be redesignated as a single Group of apparatus claims.

The traversal of the restriction requirement is also based, *inter alia*, on the fact that Tom U.S. Patent 5,518,528, cited as the basis for the contention in the Office Action that Groups I, II, III, IV and V do not relate to a single inventive concept. The common technical feature of such claims is stated to be a storage and dispensing vessel capable of containing a sorbate gas in a physically adsorbed state and a decomposition chamber. Such contention ignores the fact that all Group I-V claims additionally are drawn to decomposition of sorbate gas to form hydrogen gas, whereas the cited '528 patent teaches to avoid decomposition of the sorbate gas. The cited passage of the '528 patent at column 5, lines 20-40 is set out below for ease of reference:

“The present invention relates in still another aspect to a process for supplying a gas reagent selected from the group consisting of hydride gases, halide gases, and organometallic Group V compounds, such process comprising:

providing a storage and dispensing vessel containing a solid-phase physical sorbent medium having a physically sorptive affinity for said gas reagent;

physically sorptively loading on said solid-phase physical sorbent medium a sorbate gas selected from the group consisting of hydride gases and boron halide gases, to yield a sorbate gas-loaded physical sorbent medium; and

desorbing sorbate gas from the sorbate gas-loaded physical sorbent medium, by reduced pressure desorption, for dispensing thereof;

wherein the solid-phase physical sorbent medium is devoid of trace components selected from the group consisting of water, metals and oxidic transition metal species in a sufficient concentration to decompose the sorbate gas in said storage and dispensing vessel.”

(emphasis added)

For such reason, the alleged lack of unity under PCT Rule 13.1 is NOT present in the pending claims, and it therefore is requested that all claims 1-84 now be consolidated for further search and examination.

If despite the foregoing, the restriction requirement is maintained, it is requested that method claims 50-83 be rejoined upon the finding of allowable subject matter in the elected/re-designated apparatus claims, pursuant to the provisions of MPEP 821.04.

Fee Payable for Added Claim 84

The addition of new claim 84 herein increases the number of independent and total claims by one, beyond the numbers for which payment previously was made.

Accordingly, an added claims fee of \$272 is payable. Such fee is being paid by online credit card authorization at the time of EFS filing of this Response.

Authorization is also hereby given to charge the amount of any additional fee or amount properly payable in connection with the filing and entry of this Response, to Deposit Account No. 08-3285 of Intellectual Property/Technology Law.

CONCLUSION

For the foregoing reasons, it is requested that the restriction requirement be reconsidered, and that all claims 1-84 be submitted to search and examination.

Respectfully submitted,

/steven j. hultquist/
Steven J. Hultquist
Reg. No. 28,021
Attorney for Applicants

INTELLECTUAL PROPERTY/
TECHNOLOGY LAW
Phone: (919) 419-9350
Fax: (919) 419-9354
Attorney File No.: 2771-682

<p>The USPTO is hereby authorized to charge any deficiency or credit any overpayment of fees properly payable for this document to Deposit Account No. 08-3284</p>
--